

REMARKS/ARGUMENTS

This Amendment is submitted in response to the Office Action dated November 26, 2003. Claims 1-32 are pending. Claims 1 and 22 have been amended, consequently claims 1-32 remain pending.

The Title has been amended to recite "TRANSMISSION BANDWIDTH AND MEMORY REQUIREMENTS REDUCTION IN A PORTABLE IMAGE CAPTURE DEVICE BY ELIMINATING DUPLICATE IMAGE TRANSMISSIONS" to make the Title more indicative of the invention. The Specification has been amended to supply missing related application information, and to correct typographical errors.

Claim 1 has been amended to recite that "respective image identifiers" are assigned to captured images the "first time the captured images are uploaded to a server," and that in response to a user request to apply an action to the images, "the requested action and the image identifier, rather than image itself" is uploaded to server. Support for the amendment may be found on pages 4 and 9-16, for example. Claim 22 has been amended to correct a typographical error. Accordingly, no new matter has been submitted.

The Examiner rejected claims 1-17 and 19-32 under 35 USC §102(e) as being anticipated by Safai et al (6,167,469). Applicant respectfully traverses this rejection because Safai fails to teach each and every element of independent claims 1, 9, 14, and 22.

The present invention provides a method and system for reducing storage and transmission bandwidth requirements of a portable image capture device capable of establishing a communications connection on a network. In a first aspect of the present invention, a method for reducing bandwidth requirements is provided by assigning an image identifier to captured images uploaded to a server on a network. Thereafter, in response to a user request to apply an

action to one of the uploaded images, only the image identifier of the image and the requested action are transmitted to the server. Transmitting only the image identifier of the image after an image is uploaded the first time eliminates the need to retransmit the image, thereby reducing transmission bandwidth requirements. In a second aspect of the present invention, a method for reducing storage requirements is provided by reducing the size of each of the image files corresponding to the uploaded images on the image capture device. Reducing the image files of each of the uploaded images after image uploading frees memory space for the capture of additional images and reduces storage requirements.

In contrast to the present invention, Safai is directed to a method and apparatus for transporting digital images from a digital camera to a server. The digital camera executes a transport application that enables a user to send one or pictures from the camera to one or more external addresses (column 7, lines 31-37). The transport application enables the user to select or enter an email address, choose a photo, record a voice message, and then send the photo to a server. The server then emails the photo to the specified address.

Safai may teach a camera that connects to a server and assigns image identifiers to captured images. However, Safai fails to teach or suggest only uploading the image identifier to the server, rather than the image itself, after the first time the image is sent in order to eliminate the need to retransmit the image, as recited in claim 1.

The Examiner cites Col. 4, lines 1-10 and Col. 11, lines 10-14 of Safai for teaching the step of “in response to a user request to apply an action to one of the uploaded images, transmitting the image identifier of the image and the requested action to the server.” However, the cited passages of Safai merely read as follows:

Still another feature relates to generating authentication information relating to the image; and storing the authentication information in the digital

camera in association with the image. A related feature is that the step of generating comprises the steps of computing and storing a hash value by applying a one-way hash function to the image. Another related feature is that the step of generating comprises the steps of computing and storing a hash value by applying a one-way hash function to the image and to a key value. Col. 4, lines 1-10

The value displayed in the counter field 438 is incremented and re-displayed. An identifier of the selected image is stored in the storage device for later use. Thus, the transport application maintains a stored list of selected images. Col. 11, lines 10-14

These passages of Safai disclose generating authentication information and an identifier for an image and storing the authentication information/identifier in the camera. Nowhere does Safai teach or suggest transmitting the information/identifier to the server. And even if Safai did teach that step, Safai further fails to teach or suggest that after the image is uploaded the first time, just the identifier is transmitted, rather than the image itself in order to eliminate the need to retransmit the image, as recited in claim 1.

Similarly, Safai fails to teach or suggest the steps of “determining if the selected image is marked; and if the selected image is marked, uploading the image identifier to the server, wherein the server performs the action on the image identified by the image identifier,” as recited in independent claims 9 and 14.

Safai actually teaches away from the present because when a user sends a request to the server to send an email with a particular image and the request and the image are transmitted to the server, that same image would be uploaded a second time if the user subsequently sent a second request to email the image. The present invention, in contrast, would reduce bandwidth in such a situation because when the user sent the second email request, the camera would only transmit the image identifier and the requested action to the server, but not the image.

With respect to independent claim 22, in addition to failing to teach or suggest uploading an image once, Safai also fails to teach or suggest the embodiment of the present invention where

the image identifier is assigned to an uploaded image *by the server*, and then downloaded “to the image capture device for association with the corresponding uploaded image.” The Examiner cites Col. 15, lines 27-45 of Safai for teaching this step, which states:

Services 602 may also include a photo album maintenance service. In the photo album service, a camera owner registers with the server 601 and receives a unique username and password. The camera owner is entitled to store a fixed number of photos on the storage device 614 associated with the server 601. The camera owner may use the camera 100, under control of the transport application 230 or another application, to upload one or more photos to the camera owner's account and designated photo storage area on the storage device 614. Using the transport application or another application, the camera owner may connect to the server 601, retrieve one or more photos that are stored in the owner's account on the storage device 614, and view the photos at the camera. The camera owner may also print any stored photo at any time and transport any photo at any time in the manner described above in connection with transport application 230. Thus, the storage device 614 and services 602 provide a virtual photo album service to the camera owner.

As can be seen, this passage of Safai, like the rest of Safia, is silent as to the server assigning image identifiers to images and downloading the identifiers to the camera so that the next time an action is to be performed on the images, just the identifier and not the image need to be transmitted to the server to reduce bandwidth.

In view of the foregoing, it is submitted that independent claims 1, 9, 14, and 22 are allowable over the cited references. Because the secondary references stand or fall with the primary references, claims 2-8, 10-13, 15-21, and 23-32 are allowable because they are dependent upon the allowable independent claims. Accordingly, Applicant respectfully requests reconsideration and passage to issue of claims 1-32 as now presented.

Applicant's attorney believes that this application is in condition for allowance. Should any unresolved issues remain, Examiner is invited to call Applicant's attorney at the telephone number indicated below.

Respectfully submitted,  
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Date



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